

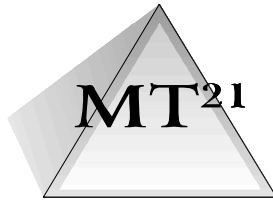
ISD, Agency, and University Information Technology Plans

INTRODUCTION

This section presents, in the following order, ISD's information technology (IT) plans; the IT plans for the agencies and the universities; and a project profiles table. The IT plans detail each organization's mission, major IT projects for FY98-99, the business goals those projects support, and accomplishments from the last biennium. Where possible, FY00-01 IT initiatives are also provided.

The project profile table contains IT project details related to platform type, implementation schedules, emerging technologies used, new project resources and associated costs, statutory changes, and public access. Those agencies and universities that were able to provide such detail about their FY98-99 IT projects are listed alphabetically within the table, with each followed by its project profiles.

Montana's agencies and the university system use IT for streamlining internal processes and for providing efficient, cost-effective, and appropriate public services and educational opportunities. Each agency is responsible for establishing its own information technology goals, objectives, and plans. But to ensure network and statewide IT strategic plan conformance, agencies work with ISD when procuring hardware, software, and private-sector services. The universities are also responsible for establishing their own information technology plans.



Computing Operations Bureau

Mission

The mission of the Computing Operations Bureau is to provide reliable, effective, and efficient centralized computing services to state agencies and other government units 24 hours per day, seven days a week. The Bureau consists of two sections: Production Services and Production Support. Production Services is responsible for the ongoing operation of mainframe and centralized mid-tier production computer configurations. This section is always focused on accommodating the growing automated workload demands of state agencies. Production Support is responsible for configurations; operating systems and maintenance; network interface support; methods/media management; and centralized security administration.

These sections provide professional computer operations support services; develop training curriculum; provide problem and change resolution in support of current software products; evaluate and install new software and hardware products; and determine the methods and use of software products by state employees. In addition, this Bureau is continually seeking innovative means to make the state's mainframe and shared mid-tier configurations more compatible and compliant with the growing IT processing needs of state agencies.

Achieving Business Goals Through IT Initiatives

Business Goals	FY98-99 IT Projects
Accommodate growth in computer workload.	Install mainframe processor upgrade.
Satisfy growing agency need for centrally administered, mid-tier computer services.	Expand mid-tier configuration.
Improve ease-of-use of mainframe computer.	Implement systems-managed storage and continue deployment of newer mainframe

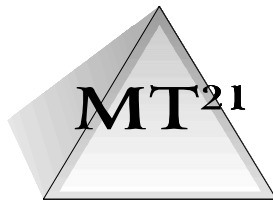
	interface technologies.
Business Goals	FY98-99 IT Projects
Reduce labor-intensity of mainframe configuration.	Continue deployment of automated operations methods and technologies.
Improve efficiency and price/performance of central data center; reduce customer service rates while accommodating workload growth.	Continue practice of purchasing used computer equipment at reduced prices.
Promote and facilitate a growing role, which the mainframe configuration can accommodate, in supporting agency migration toward more open systems and an enterprise-wide client/server environment.	Install Unix-compliant operating system, and client/server access and interface software tools.
	Implement secure data-warehousing technology.
	Expand mainframe TCP/IP connections into legacy systems.

Accomplishments

- ▲ Upgraded ISD's mainframe computer to an IBM ES9000/832.
- ▲ Installed and configured a shared-use, DEC Alpha 4100, mid-tier, production computer configuration.
- ▲ Successfully conducted a comprehensive mainframe and network disaster recovery test using the disaster recovery "hot-site" facility.
- ▲ Selected, procured, configured, and implemented an automated-report-distribution software system for mainframe customers. This system provides report packeting, indexing, customization, automated archiving, online viewing, and print interface to client/server.
- ▲ Completed conversion to a "cartridge" magnetic-tape storage system from a "reel" tape system.
- ▲ Upgraded mainframe storage and controllers to more current technology that enhanced performance by 45% while improving reliability.
- ▲ Implemented mainframe TCP/IP software that has enhanced communication between legacy mainframe applications and other computing platforms.
- ▲ Installed and customized enhanced system-monitoring software that provides better automated system-problem determination, increases ease of operation, and improves change control.
- ▲ Upgraded all operating-system software levels and installed new versions of COBOL and Visual Gen software.
- ▲ Implemented an automated job-scheduling system for mainframe customers.

**Computing
Operations
Bureau**

- ▲ Implemented a laser-print mailer system using Moore Corporation's folder/pressure sealer technology. By reducing mail costs and the expense of special forms, significant agency savings have been realized, while significantly improving the quality of mail-ready computer printout.
- ▲ During FY96, accommodated an approximately 40% increase in computer workload, as compared to FY95 volume.
- ▲ Reduced FY97 customer service rates for production mainframe processing by 33%, as compared to FY96 rates.



Policy, Development, & Customer Relations Bureau

Mission

The mission of the Policy, Development, & Customer Relations Bureau is to develop computing and telecommunications standards and policies; promote technology development; manage the statewide

9-1-1 program; coordinate IT training offerings; provide division-wide customer relations; and coordinate state geographic information system (GIS) activities, including a governance structure for addressing GIS policy issues.

*Policy,
Development, &
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Achieving Business Goals Through IT Initiatives

Business Goals	FY98-99 IT Projects
Initiate and coordinate, at the enterprise level, the development and implementation of statewide strategic directions.	Participate on and facilitate ITAC, SEC, and ITMG task forces and subcommittees established to develop statewide IT direction, standards, policies, and guidelines. Identify areas of multi-agency interest where state standards and policies should be developed and initiate actions that lead to the establishment of those standards/policies. Standards and policies to be developed in FY98-99 are electronic commerce,

	<p>Internet/Intranet, and document management.</p> <p>Prepare and publish the <i>2000-01 Information Technology Plan</i></p> <p>Study and develop recommendations for an information management strategy based on IRM (Information Resource Management), a concept for better managing data, applications, and technology.</p>
Business Goals	FY98-99 IT Projects
Enterprise information resource planning.	Work with ITAC in developing a process, timetable, and plan for managing the state's data, applications, and technology. The process would include strategic and long-range planning; the timetable would accommodate Legislative sessions; and the plan would involve the enterprise's documentation and discussion of the current environment, visioning, the development of a long-range IT action plan, and the measurement of results.
Develop computing and telecommunications policy.	Review and update all existing computing and telecommunications policy. Develop new policy as related to Internet, electronic commerce, imaging, wireless communications, and other emerging technologies.
Monitor IT trends and serve as an information resource for the enterprise.	<p>Write, maintain, publish, and distribute white papers about emerging technologies.</p> <p>Monitor federal, state, and corporate IT trends.</p> <p>Monitor activities in the Telecommunications Act of 1996, the Montana Public Service Commission (PSC), and the Federal Communications Commission (FCC).</p> <p>Monitor national regulatory issues related to public safety wireless communications.</p> <p>Monitor the needs of ISD customers and use the feedback to improve the services ISD provides.</p>
Ensure the state's IT environment is Year 2000 compliant.	Provide Year 2000 Compliance Project leadership.

Coordinate state GIS activities.

Provide coordination activities for state GIS, including a governance structure for addressing GIS policy issues.

Business Goals

FY98-99 IT Projects

Provide procurement management for statewide IT acquisitions.

Review agency requests for hardware, software, and services.

Identify IT procurement models used in the public sector and recommend future model(s) for the state that are consistent with efforts in procurement reform.

Manage ISD contracts.

Develop, issue, and evaluate procurement documents (RFPs, RFIs, and IFBs).

Administer Public Safety radio frequencies, policies, and procedures.

Develop and maintain state policies on the use and operation of public safety frequencies.

Upgrade and distribute the *Mutual Aid and Common Frequencies—1994* handbook.

Support state and local government entities in public safety communications, and wireless system applications and engineering.

Provide consultative service for general systems.

Review and assist local entities in developing regional emergency communications plans.

Continue supporting Public Safety Communications Task Force efforts in developing a shared public safety radio network.

Upgrade 9-1-1 networks to provide universal 9-1-1 access and advanced technologies.

Implement legislative change to provide dedicated 9-1-1 trunks and introduce advanced technologies such as enhanced 9-1-1 (E9-1-1).

Provide statewide coordination for disaster recovery planning.

Provide statewide direction for the development and execution of agency-specific business continuity and disaster recovery plans.

Incorporate ISD and agency business continuity and disaster recovery plans with local government and university plans.

Business Goals

FY98-99 IT Projects

Provide project management for state IT projects.

Coordinate the email RFP process.

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Customer
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	<p>Develop an Enterprise Application Database that describes the state's applications in terms of platform type, costs, development language, emerging technologies used, and other attributes.</p> <p>Facilitate the PC Subcommittee.</p> <p>Study options on expanding the capacity of the Helena state capitol-complex switches and the State Telephone Network.</p> <p>Manage the RFP process for the procurement of 22 intercity T1 lines for the state's dedicated telecommunications network.</p> <p>Provide procurement management for key telephone systems for all state agencies.</p> <p>Renegotiate the contract with WilTel Communications for the purchase and maintenance of CLI interactive video equipment.</p> <p>Renegotiate or rebid the present contracts with AT&T and US West for commissions paid on revenues generated from pay phones located in or on state properties, and revenues generated from the prison inmate phone systems.</p> <p>Participate in the capitol renovation project.</p> <p>Provide project management and statewide coordination on the Department of Revenue's proposed GIS cadastral database project.</p> <p>Investigate the use of cadastral data and other demographic databases for non-natural resource based GIS applications.</p>
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Accomplishments

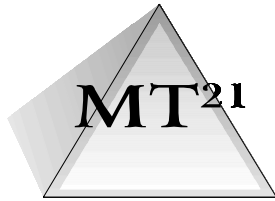
- ▲ Published the *1998-99 Information Technology Plan*
- ▲ Facilitated the 1996 ITAC strategic planning effort.
- ▲ Analyzed the feasibility of restructuring ISD, and prepared two comprehensive reports in conjunction with the Governor's request to state agencies to explore opportunities for greater competition and/or for a cost effective means of providing state services.
- ▲ Managed the LAN Services RFI in response to an ITAC request to assess the potential of acquiring LAN support services from the private sector.

- ▲ Developed a Contract Management Database for computing and telecommunications contract administration.
- ▲ Researched emerging IT trends, established an ongoing reference library of information on emerging technology and state governments, and published white papers on data collection (bar coding) and multimedia technologies.
- ▲ Facilitated the development of statewide, electronic imaging standards.
- ▲ Published computing and telecommunications policies (SummitNet acceptable use, security, and access policies).
- ▲ Established ISD's Web site on the Internet.
- ▲ Worked with the Senate Joint Resolution Committee (SJR 23) in developing recommendations for integrating the state's asset management systems and for managing data.
- ▲ Supported the Governor's Blue Ribbon Telecommunications Task Force's efforts in the development of policy for advanced telecommunications services for the state.
- ▲ Supported the ITAC Coordination Task Force's efforts in developing recommendations for the following: Minimum Level of Technology; Personal Services; LAN Services RFI; ITAC/ITMG Relationship; IT Pace of Change; and IT Services Options.
- ▲ Produced the first complete publication describing ISD services.
- ▲ Broadened and improved the technical training curriculum available to the state, including new offerings in Oracle, customized NetWare training, and the state's first Internet training.
- ▲ Increased the number of students served by the State Training Program by 20%.
- ▲ Published the enterprise mid-tier computing standards.
- ▲ Increased 9-1-1 service coverage.
- ▲ Studied the feasibility of selling excess processing cycles on the state's mainframe.
- ▲ Performed long-range disaster recovery planning and executed a disaster recovery drill.
- ▲ Developed a draft of ISD's disaster recovery plan.
- ▲ Facilitated ITAC's GIS Task Force; published the "Report of GIS Technology Directions, Implementation, and Use."
- ▲ Established a GIS Services Section to support the state's GIS cadastral (property boundaries) project activities.
- ▲ Managed the RFP process and established a contract with US West and IBM to expand the statewide data network (SummitNet) using frame relay services.
- ▲ Managed the RFP process and established a contract with IBM to install and maintain

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intelligent hub (IHub) equipment on the state capitol complex fiber-optic backbone. Also established a term contract with IBM for the ongoing purchase of IHub equipment.

- ▲ Managed the RFP process and established a contract for the acquisition of key telephone systems for all state agencies.
- ▲ Managed the RFP process and established a long-term contract for cellular telephone services and equipment for all state agencies, as well as for state employees.
- ▲ Managed the IFB process and established a contract with AT&T to provide T1 service for the backbone network supporting frame relay services for SummitNet.
- ▲ Managed the RFP process and established a contract with Sprint for telecommunication relay services (voice and TDD/TTY terminals).
- ▲ Renegotiated contracts (with rate reductions) for long-distance services with AT&T, Sprint, and US West.
- ▲ Supported the Public Safety Communications Task Force (PSCTF).
- ▲ Managed the RFP process and established a contract to develop a Statewide Consolidated Communications System Concept Design.
- ▲ Obtained funding for consultive services for the Statewide Consolidated Public Safety Communications Concept Design, including writing and submitting the grant to the Montana Board of Crime Control (MBCC).
- ▲ Provided input to the Public Safety Wireless Advisory Committee (PSWAC) of the FCC/NTIA.
- ▲ Established term contracts for fixed-base-radio, mobile-radio, and radio-accessory-equipment.
- ▲ Converted Spectrum Management System (SMS) to a new PC environment, allowing for the integration of information databases.



*Systems Support
Bureau*

Systems Support Bureau

Mission

The mission of the Systems Support Bureau (SSB) is to support state agencies in their implementation and use of IT by providing: application system design, development, and support services; technical support services for software used by professional data processing staffs; technical support services for software and access technologies used by IT users; coordination and management of the selection of standard software applications; and emerging technology assessment and planning.

This Bureau includes three sections: Applications Development Support (ADS); End User Systems Support (EUS); and Systems Development Support (SDS). ADS supports the state's major financial systems (SBAS, P/P/P, Warrant Writer, and PERS), several agency systems, and ISD's business application systems. ADS also conducts feasibility studies and systems planning, and develops systems in both mainframe and client/server environments. EUS supports the

operation of the enterprise electronic mail system, provides end-user support for the state standard desktop application products (including WordPerfect, Lotus, Freelance, and Windows), and provides support for public access to government information through the BBS and Internet services. SDS supports mainframe software (including CICS, IDMS, and other packages and utilities that support mainframe operation), and provides assistance to agency programmer/analysts using these products. SDS also provides database administration for the state's mainframe database management system (IDMS), and for the state's standard relational database management system (Oracle).

Achieving Business Goals Through IT Initiatives

Business Goals	FY98-99 IT Projects
Facilitate agency participation in enterprise database development.	Provide Oracle tools and training.
Improve public access to state government information.	Provide resources for the development and maintenance of Internet services.
Business Goals	FY98-99 IT Projects
Improve government through IT implementation.	Implement new enterprise electronic-mail system.
	Provide additional enterprise database developers (Oracle programmers).
	Provide local area network (LAN) administration for agencies.
Support for information systems development.	Assist and support the agencies in the use of systems development software and databases.
	Provide professional guidance and assistance in systems and database design and problem resolution.
	Provide a fully supported, current set of system software for access; systems development and support; and database management. Maintain current software releases and new releases and products.
	Design and review training curriculum for systems analysis, programming, and database management.
Information systems development.	Develop and support critical business application software for state agencies, including the Statewide Budgeting and Accounting System (SBAS); Payroll/Personnel/Position Control (P/P/P);

Warrant Writer; Public Employees' Retirement System (PERS); ISD Administrative Systems; State Trust Lands Management System; FWP BAS; Secretary of State's Uniform Commercial Code (UCC) System; and Secretary of State's Corporation System.

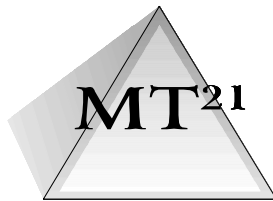
Provide a professional programming staff (available under internal services agreements) to design, develop, support, and maintain systems.

Business Goals	FY98-99 IT Projects
Support for information technology users.	<p>Provide services that guide and support state agency selection and state employee use of standard hardware and software products, including developing training curriculum; assisting with current software and resolving associated problems; and evaluating new releases and products.</p> <p>Support standard desktop and mainframe software and products used by state employees.</p> <p>Implement and provide operational support for statewide enterprise electronic mail.</p> <p>Provide a state World Wide Web site on the Internet and a Bulletin Board System (BBS). Associated with these are managing the day-to-day operation and problem solving, and assisting and encouraging state agency use for providing public access to state government information.</p> <p>Provide, through internal service agreements, LAN administration for agencies.</p> <p>Design and review training curriculum for new end-user products (word processing and spreadsheets).</p>
Emerging technology assessment and planning.	<p>Research, evaluate, plan, and implement new technologies.</p> <p>Provide advice and assistance in the formulation of policy, standards, and guidelines for computing and data network products, capabilities, and use.</p>

Systems Support Bureau

Accomplishments

- ▲ Established Oracle technical support service to assist and support the use of Oracle database and development tools. Assisted agencies in the implementation of Oracle software, established a users' group, and coordinated the development of appropriate training.
- ▲ Developed, through a collaborative ITMG effort, a desktop database development product standard (Lotus Approach).
- ▲ Developed, through a collaborative ITMG effort with ITAC approval, a direction for mid-tier processing, including operating system standards; established, as an inter-bureau project with Computing Operations, a shared central-processing facility.
- ▲ Developed, through a collaborative ITMG effort, a direction and plans for the implementation of Windows 95.
- ▲ Developed, through a collaborative ITMG effort, an electronic mail strategy.
- ▲ Provided an online communication link between the mainframe and Department of Revenue's AS400 for simultaneous update of each system.
- ▲ Developed a State of Montana presence on the Internet, via Montana Online.
- ▲ Developed, through a collaborative ITAC effort, policies for state agency provision of Internet services.
- ▲ Successfully completed the planning for the Secretary of State's reengineering project and commenced development of the project's first phase.
- ▲ Provided professional systems support services for the state's major financial management systems (PERS, P/P/P, SBAS, Warrant Writer, and PAMS), plus a variety of applications systems that support individual agency business, including ISD's billing systems. Incorporated the use of the Report Distribution System and Job Scheduler in many of these systems to improve agency access to reports.
- ▲ Developed several client/server applications to support ISD's business needs: contract management; call routing; email administration; and ISD locator.
- ▲ Provided support to a growing number of email users; during the last biennium, the number of users increased from 3000 to 4900.
- ▲ Provided software support to the users of mainframe online and batch applications.
- ▲ Upgraded CICS (the telecommunications access facility) and IDMS (the state's legacy database management system) to current releases.
- ▲ Implemented a "middleware" capability that allows access to legacy mainframe data from Oracle applications and/or access to Oracle databases from legacy mainframe applications.
- ▲ Provided technical leadership and support in the selection of a consultant for the MT PRIME project and participated in the project's analysis and planning phase.



Telecommunications Operations

Bureau

Telecommunications Operations Bureau

Mission

The mission of the Telecommunications Operations Bureau is to provide cost-effective and reliable voice, video, and data services for all state agencies, the University System, and other government units. The Bureau is divided, by function, into two sections. The Data Network Operations Section supports the state's local and wide-area network infrastructure including a campus fiber-optic backbone; a frame relay, multi-protocol, routed network; an SNA multi-drop network; the Novell Network Operation System; and the Network Assistance Center. The Voice Operations Section oversees the operations of the state's telephone switches, voice mail, integrated voice response systems, video systems, and the statewide telecommunications backbone network.

The Bureau provides first-level support for voice and data network problems; coordinates network add, move, and change activity; oversees multiple vendor contracts supporting the statewide telecommunications infrastructure; and provides network design and consultation to all state agencies.

Achieving Business Goals Through IT Initiatives

Business Goals	FY98-99 IT Projects
Satisfy the need for an enterprise network operating system.	Continue Novell 4.X implementation.
Satisfy increasing requirements for	Initiate ATM deployment.

bandwidth and provide data, voice, and video integration.	
Provide continued support of communications infrastructure.	Rewiring projects: the capitol building, the capitol campus, and remote sites.
Promote the use of video facilities for state, educational, and other entities.	Expand video capabilities.
Maintain the latest level of switching technology to take advantage of services offered by carriers.	Network switch upgrades.
Business Goals	FY98-99 IT Projects
Satisfy increasing needs to support the user base and infrastructure.	Expand Help-Desk coverage.
Satisfy agency requests for new, or replacement, telephone sets.	Normal station growth and replacement.
Continue to provide Internet-access carrier services.	Provide Internet access.
After the e-mail standard is developed, the Bureau will implement it and provide support statewide.	Deploy enterprise email technology.
Upgrade state backbone facilities from T1 to DS-3 capabilities.	DS-3 backbone expansion.

Accomplishments

- ▲ Deployed 150 SummitNet sites statewide, supporting application requirements throughout the state for multiple agency projects including: Job Service, property appraisal, and welfare offices.
- ▲ Provided executive reorganization infrastructure improvements for the following agencies: Commerce, Corrections, Environmental Quality, Family Services, Natural Resources and Conservation, Public Health and Human Services, and State Lands.
- ▲ Provided 900-service for the Department of Fish, Wildlife and Parks, the Legislative Branch, and the Department of Commerce.
- ▲ Upgraded 15 campus buildings with IBM intelligent hubs, which supports higher bandwidth requirements, improves management capabilities, and reduces maintenance costs.
- ▲ Expanded campus fiber backbone to include eight (8) new buildings.
- ▲ Provided transparent LAN Services to eight (8) Helena locations.
- ▲ Deployed Novell 4.1 on 60 servers statewide, supporting remote office applications for three departments (Revenue; Fish, Wildlife and Parks; and Labor and Industry).

- ▲ Upgraded switches to be compliant with the 10-digit, North American dialing plan.
- ▲ Negotiated long-distance rate reductions with state and inter-exchange carriers.
- ▲ Expanded video capabilities in Bozeman and Missoula.
- ▲ Established term contract for key systems.
- ▲ Expanded ACD (automatic call distribution) and menu applications, including voice mail.
- ▲ Enhanced IVR (interactive voice response) applications for the following agencies:
Revenue; Public Health and Human Services; and Labor and Industry.

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